

Amendments to the Claims

1. (*Currently Amended*) VLIW processor comprising:

- a plurality of functional units (~~1, 3, 5, 7~~);
 - a distributed register file (~~9, 11, 13, 15~~) accessible by the functional units (~~1, 3, 5, 7~~);
 - and a partially connected communication network (17) for coupling the functional units (~~1, 3, 5, 7~~) and selected parts of the distributed register file (~~9, 11, 13, 15~~);
- characterized in that the VLIW processor further comprises communication means (29) for coupling the functional units (~~1, 3, 5, 7~~) and the distributed register file (~~9, 11, 13, 15~~).

2. (*Currently Amended*) A VLIW processor according to Claim 1 wherein:

- the communication means (~~29~~) comprise a multiplexer (~~31~~) and a bus (~~33~~), the multiplexer (~~31~~) being arranged for coupling the functional units (~~1, 3, 5, 7~~) and the bus (~~33~~), the bus (~~33~~) being arranged for coupling the multiplexer (~~31~~) and the distributed register file (~~9, 11, 13, 15~~).

3. (*Currently Amended*) A VLIW processor according to Claim 1 wherein:

- the communication means (~~29~~) are arranged for communication with a first latency, the partially connected communication network (~~17~~) is arranged for communication with a second latency, the first latency exceeding the second latency.

4. (*Currently Amended*) A VLIW processor according to Claim 2 wherein: the bus (~~33~~) comprises at least one pipeline register (~~35~~).

5. (*Currently Amended*) A VLIW processor according to Claim 2 wherein:

- the multiplexer (~~31~~) comprises at least one register.

6. (*Currently Amended*) A VLIW processor according to Claim 1, comprising a first plurality (~~101~~) of functional units (~~105, 107~~) and a second plurality (~~103~~) of functional units (~~109, 111, 113~~);

a first pass unit ~~(171)~~ associated with one ~~(107)~~ of the functional units ~~(105, 107)~~ of the first plurality ~~(101)~~ for passing data from one ~~(121)~~ of the distributed register files ~~(115, 117, 119, 121)~~ associated with the first plurality ~~(101)~~ of functional units to one of the distributed register files ~~(123, 125, 127, 129, 131, 133)~~ associated with the second plurality ~~(103)~~ of functional units ~~(109, 111, 113)~~;

and a second pass unit ~~(173)~~ associated with one ~~(113)~~ of the functional units ~~(109, 111, 113)~~ of the second plurality ~~(103)~~ for passing data from one ~~(133)~~ of the distributed register files ~~(123, 125, 127, 129, 131, 133)~~ associated with the second plurality ~~(103)~~ of functional units to one of the distributed register files ~~(115, 117, 119, 121)~~ associated with the first plurality ~~(101)~~ of functional units ~~(105, 107)~~;

7. *(Currently Amended)* A VLIW processor according to Claim 6 wherein:

the pass units ~~(171, 173)~~ are part of the respectively associated functional units ~~(107, 113)~~.

8. *(Currently Amended)* A VLIW processor according to Claim 1 wherein:

the communication means ~~(29)~~ couple the functional units ~~(1, 3, 5, 7)~~ and all parts of the distributed register file ~~(9, 11, 13, 15)~~.